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Geotech Shells issues debrief 2014Mar27.docx

I wanted to give you a quick update on the responses we received thus far from Shell addressing the EPA questions sent on March 20. The responses have been sent in a disorganized piece-mealed manner and a few have not yet been addressed to-date. The responses contain minimal information and are vague, redundant, or not helpful at all to the permit.

The responses also raised a concern for me about whether we should incorporate the new comments received into the Response-to-Comments (RTC) process for the draft permit. For example, Shell made a case in one of the submissions that while the vessel is drilling the borehole in dynamic-positioning mode, it is still operating in a marine mode of transportation and not restricted to discharging under the Geotech GP. This is a new comment.

Below is a short summary of the responses Erin and I developed for your reading pleasure.

Shell (Greg Horner) has contacted me on several occasions to offer an opportunity to discuss the responses. My recommendation at this time is to say no. I do not believe another meeting is going to result in any specific information and would further delay our work on the RTC and permit/fact sheet/ODCE revisions. I also recommend that we proceed with the path-forward approach we developed after the Shell meeting on March 26 (attached).

Given the proposed changes, we will likely have to re-notice the permit. I will schedule a short briefing to discuss the legal issues and a revised project schedule.

Please share your thoughts, input, questions, and concerns.

Hanh

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## **SUMMARY OF SHELL'S RESPONSES AS OF MAY 2, 2014**

### **EPA QUESTION: DISCHARGE VOLUME AND USE OF DRILLING FLUIDS**

- *Provide specific information addressing EPA's assumptions regarding discharge volumes along with all necessary supporting documentation.*

- **Shell's response:**
  - Volumes are dependent on the size of the vessel. Each discharge stream ranges from “zero to the design capacity of the system.”
  - Vessel discharges should not be subject to the Geotech GP. Even when a vessel is operating under dynamic positioning mode, they continue to operate as a marine mode of transportation.
  - Discharge requirements should be consistent with the VGP.
- *Provide an estimate of the number of holes and the depths of the holes for which drilling fluids are likely to be used.*
  - **Shell's response:**
    - Boreholes less than 50ft depth below the seabed likely will only require seawater; however, drilling additives will be utilized as needed.
    - A drilling fluid plan for the proposed boreholes will be submitted with the NOI.

#### **EPA QUESTION: EMP**

- *Explain how Shell views the EMP requirements established by the Geotech GP to be similar to the four phases of the EMP required under the exploration general permits.*
  - **No response to-date.**
- *Explain how data from the baseline monitoring programs or pre-site surveys would meet the objective and information needs of an EMP.*
  - **No response to-date.**

#### **EPA QUESTION: BATCH SAMPLING**

- *Provide specific information on the estimated volumes discharged per batch.*
  - **Shell's response:**
    - A “lot” is the total amount of drilling fluid procured from a vendor for an entire geotechnical survey program. A “batch” is drilling fluid mixture used to drill individual boreholes.
    - Depending on the size of the mud pits on the operating vessel, multiple batches of mud may be mixed for a single borehole or if the tank capacity is larger, one batch of mud maybe used for sampling at multiple boreholes.
- *Provide the frequency at which new batches of drilling fluids would be mixed on a per borehole basis.*
  - **Shell's response did not address the question.**
- *Provide the likelihood that a new mud formulation would be used during the course of the season.*
  - **Shell's response did not address the question.**

#### **EPA QUESTION 4: GEOTECHNICAL RELATED ACTIVITIES**

- Provide specific details addressing EPA's assumptions of the estimated level of activity, area of potential impact, discharge volumes, and the nature, frequency, type and locations of geotechnical related activities that could occur during the 5-year term of the permit.
  - **Shell's response did not address the questions.**

#### **EPA QUESTION 5: USE OF DRILLING FLUIDS**

- Provide any additional information on the number of boreholes for which drilling fluids are likely to be used.
  - **Shell's response:** Most boreholes to 50ft can be conducted using seawater, unless stratigraphy requires additives. Deeper holes would require the use of drilling fluids between 50 and 150ft depth.
- If drilling fluids will not be used to drill any shallow borehole (i.e. less than 50 feet in depth), please explicitly say so.
  - **Shell's response:** Assume that seawater will be the drilling fluid for all boreholes, but will be prepared with additives necessary as site conditions dictate.

#### **EPA QUESTION 6: PREDICTIVE MODELING**

- Provide the specific information Shell has identified in EPA's model assumptions and provide the data that should be considered representative of conditions in the nearshore environment.
  - **No response to-date.**

#### **EPA QUESTION 7: PRE-SITE CHARACTERIZATION**

- Provide additional information regarding the specific regulatory authority or jurisdiction under which this pre-siting work is being performed, to whom the data is reported, and the locations and the distances of the pre-site surveys relative to the individual borehole locations.
  - **Shell's response:**
    - BOEM's Notice to Lessee (NTL) requirements necessitate pre-site investigation clearance be conducted on leased OCS lands in advance of a site investigation that disturbs the seabed. Please consider this information in lieu of requiring re-collection of the same data.

#### **EPA QUESTION 8: LACK OF SUBSTANCE IN SHELL'S COMMENTS**

- Provide specific and substantive details supporting the statements made by Shell in its comment letter regarding the ODCE.
  - **No response to-date.**